

A STUDY OF HEMATOLOGICAL INDICES, ASSESSMENT SCORES AND PREDICTOR OF PROGNOSIS IN PATIENTS WITH ACUTE PARAQUAT POISONING

ABSTRACT

BACKGROUND

Paraquat poisoning is a severe major problem in many developing countries. Following ingestion of small amounts of the liquid concentrate causes acute lung injury, pulmonary fibrosis, respiratory failure, and multiorgan failure, resulting in high rate of morbidity and mortality.

AIMS AND OBJECTIVES To investigate the hematological indices, assessment scores and evaluates the predictor of prognosis in patients with acute paraquat poisoning, to identify predictors in acute paraquat poisoning and determine the association between these parameters.

Materials and methods

This study was conducted in our poison centre, Institute of Internal Medicine, Rajiv Gandhi Government General Hospital , Chennai. It was a Observational study done during the period from August 2018 to July 2018. 50 patients, admitted as a case of acute Paraquat poisoning cases in our toxicology ICU, demographic, clinical, laboratory data were recorded. Sequential organ failure assessment (SOFA) and acute kidney injury network (AKIN) scores were collected, and predictor of ARDS were analysed

Results

Out of 50 patients of acute paraquat poisoning 54% males are predominant, most prevalent in the age group 21 to 50 years. most of the cases occurred due to ingestion (100%) attempting suicide. urine sodium dithionite test was used as PQ screening test ARDS patients has significant correlation of SOFA SCORE($p<0.001$), AKIN SCORE($p<0.001$) and leucocyte count($p<0.001$), platelet count($p<0.001$), increase NLR ratio($p<0.001$) compared with non ARDS patients. SOFA scoring at 48 hrs was much reliable that it correlated clearly with the duration of Hospital stay, development of complications, quantum of exposure(ANOVA12.4) mechanical ventilation($p<0.06$), pulse therapy($p<0.001$), hemodialysis($p<0.03$), quantum of exposure directly proportional to the mortality., In spite of effective treatment 5 cases were died <24 hrs, 13 cases were died <48 hrs, hence we excluded 5 patients from 24 hrs, 13 patients from 48 hrs

Conclusion

In this study shows that acute pq poisoning can cause leucocytosis, thrombocytopenia. high NLR ratio, have excellent predictor of prognosis in acute pq poisoning .the analytical study results indicate that SOFA , AKIN ACORE at 48hrs are significantly associated with mechanical ventilation, hemodialysis, pulse therapy, ARDS has significant correlation of leucocyte count, lymphocyte count, platelet count, NLR ratio compared with non ARDS patients.

Keywords paraquat poisoning, acute respiratory distress syndrome, sequential organ failure assessment score, acute kidney injury score.